DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012268 Address: 333 Burma Road **Date Inspected:** 22-Feb-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr.Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG TRIAL ASSEMBLY

This QA Inspector Randomly observed the following work in progress:

SEGMENT: 7AE-7BE

Shielded Metal Arc Welding (SMAW) welding of weld joint OBE7B-003. Welder is identified as 066038. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-P-2214-B-U2-FCM-1.

Shielded Metal Arc Welding (SMAW) welding of weld joint OBE7B-002. Welder is identified as 067183. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-P-2214-B-U2-FCM-1.

SEGMENT: 6BW

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Shielded Metal Arc Welding (SMAW) welding of weld joint OBW6F-007. Welder is identified as 066261. ZPMC Quality Control (QC) is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-P-2214-TC-U4b-FCM-1.

Shielded Metal Arc Welding (SMAW) welding of weld joint OBW6F-005. Welder is identified as 066413. ZPMC Quality Control (QC) is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-P-2214-TC-U4b-FCM-1

SEGMENT: 7AW-7BW

Shielded Metal Arc Welding (SMAW) welding of weld joint OBW7B-002. Welder is identified as 068917. ZPMC Quality Control (QC) is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-P-2214-B-U2-FCM-1

SEGMENT: 6AE – Bike Path (BK)Side

During Quality Assurance VT review of "T"Rib base metal, this Quality Assurance Inspector (QA) discovered the following issues:

SIDE PLATE (BK SIDE)

- One (1) Arc Strike on Segment 6AE -3rd "T"Rib (counting form BK side) base metal.
- Two (2) Arc Strikes on Segment 6AE -4th "T" Rib (counting form BK side) base metal.

Applicable reference: Section 9.2.2.1 of the ZPMC Welding Quality Control Plan (WQCP)

"The surface defects such as pitting, arc strikes and compress marks shall be repaired by grinding and arc gouge excavation if necessary. The ground surface shall be transitioned smoothly. If the thickness after grinding is within the allowance shall have no need for repairing weld. Magnet Particle test shall be performed for the arc strike area after grinding for verifying no more defects."

This QA notified ZPMC QC identified as Mr. Li Yang and ABF inspector identified as Mr. Zouhu of the above issue.

(The attached photographs provide additional detail.)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

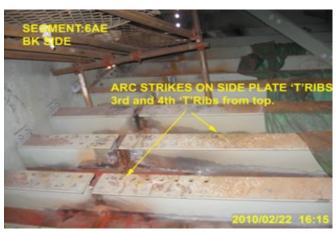
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Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Prabhu,Surendra | Quality Assurance Inspector |
|---------------|-----------------|-----------------------------|
| Reviewed By: | Miller,Mark | QA Reviewer |